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EXAMINER	
BUMGARNER, MELBA N	

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/774,451
Filing Date: February 10, 2004
Appellant(s): HAJE, EMAD EL

Richard P. Krinsky
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 27, 2006 appealing from the Office action mailed February 3, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct, with the exception of identifying claim 1 as containing means plus function format to invoke 35 U.S.C. 112, sixth paragraph. Recitation of "tool for forcing soft gum tissue of a patient around a tooth" is not a means plus function limitation as it lacks the proper phrasing.

(6) Grounds of Rejection to be reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. Whether the Robertson patent anticipated each and every

recitation of Claim 21 and whether Robertson teaches that it would be obvious to one of ordinary skill in the art as to the recitation of Claim 22.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 2, 13, 15, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Robertson (3,238,620). Robertson discloses a gum packing assisting tool comprising an endless strand of material 6 of flexible dense material which stretches under tension and which returns to its original shape when the tension is released, the length of the endless strand is less than the circumference of tooth the endless strand is to be placed over and encircle and tightly grip, which would not admit pockets therein, and the strand tool has portions of its cross-section to be of circular configuration (column 2 line 47), i.e. cross-section sliced through a plane of the tool. The cross-sectional area of the tool throughout its length is substantially constant. The tool has a medicinal coating (column 3 line 1). Robertson shows tools of at least one of different length, different thicknesses, and different shapes (column 2 line 48).

Claims 1, 3-5, 7-9, 11, 12, 15, and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Brosius (5,829,974). Brosius discloses a dental tool 20 comprising an endless strand of material 22 of flexible dense material which stretches under tension and contracts when the tension is released, the length of the strand is less than the circumference of tooth (figure 3)

and the strand tool has portions of its cross-section to be of circular configuration. Patentable weight is not given to the intended use of the tool, the tool has the capability to be used on a tooth as claimed. The cross-section of the tool varies along its length (figure 2). The cross-sectional area of the tool has at least two widened portions (figure 7), the ends of which are spaced from each by an equal distance. A portion of the tool has two projecting tabs equally spaced from one another. Brosius shows tools of different sizes (column 3 line 49).

Claims 3-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson in view of Brosius (5,829,974). Robertson discloses a tool that shows the limitations as described above; however, Robertson does not show the cross-section of the tool varying along its length. Brosius teaches a tool with an endless strand of material having the cross-sectional area of the tool varying along its length (figure 2), the cross-sectional area of the tool having at least two widened portions (figure 7), the ends of which are spaced from each by an equal distance, and a portion of the tool having two projecting tabs equally spaced from one another. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tool of Robertson to have the configuration(s) of Brosius in order to be able to facilitate installation of the tool in view of Brosius (column 3 line 53, column 4 lines 19, 38).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson in view of Mahoney et al. (5,976,439). Robertson discloses a tool that shows the limitations as described above; however, Robertson does not show the tool being biodegradable. Mahoney et al. teach a gum packing assisting tool being biodegradable (column 5 line 22). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify

the tool of Robertson to be biodegradable as in Mahoney et al. in order to use a tool that is biocompatible and easier to use by eliminating step of removal and/or disposal.

(10) Response to Argument

Claim 1 reads the tool comprising "an endless strand of material" which by itself does not have a shape given to the material; therefore, the limitation "wherein the endless strand tool has portions of its cross-section to be of circular configuration" can be interpreted to mean that **portions of its cross-section** is in a ring form (cross section taken through a plane of the tool). The dependent claims further limit the tool by using the terminology "the cross section" in claim 2 and "the cross-sectional area" in claim 4 as opposed to "portions of its cross-section" in claim 1. Robertson shows portions of its (tool) cross-section to be of circular configuration (column 2 lines 47, 61). As stated in section 5, claim 1 has not invoked 35 U.S.C. 112, sixth paragraph, since the phrase "means for" or "step for" is not used; the "means for" or "step for" is not modified by functional language; or the "means for" or "step for" is modified by sufficient structure, material, or acts for achieving the specified function. Therefore, a recitation of the intended use of the claimed invention, i.e. "tool for forcing soft gum tissue of a patient around a tooth", must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. It is believed that the "tool" of Robertson is capable of functioning as intended, as a stretchable material in ring form that is under tension on a tooth may be facilitated to roll downward over the sides of the tooth. As to Robertson's use of the word "retraction", Robertson's invention is described as an improvement over the practice of cords or string for the retraction material (column 2 line 4) and Appellant

also states in the specification that "[c]urrently this tamping is accomplished utilizing a round **string-like retraction** cord" (page 1 line 7). Furthermore, Appellant's specification states "[w]hile the dense flexible strand tool has been shown with the preferred circular cross-sectional configuration, such **a cross-section could be oval, square or rectangular**. When square or rectangular in cross-section, having the corners thereof rounded will assist in rolling of the dense flexible strand tool along the sides of the tooth, as explained supra." (page 8 line 3) This also supports that the "tool" of Robertson is capable functioning as intended. Nowhere does the disclosure of Robertson state that the ring is used for scraping as Appellant argues. Robertson teaches an endless ring to be of resilient material and the quadrilateral cross-sectional area shown in figures only.

Claim 1, as well as the specification, is not specific as to the composition of the material of the tool. It is believed that the endless strand material of Robertson meets the limitation of "the endless strand being made of a material which is easily sterilized" even if it were made of the suggested material of hard and soft leathers, as such material can be easily sterilized by irradiation such as gamma or electron beam irradiation.

The examiner may look to the specification to determine the meaning given to a term in the claims such as in the case of the term "medicinal". Appellant states on page 8 line 7 of the specification, "[d]uring periodontal work and other dental surgery procedures, patient pain and/or hygiene are of importance. In such situations it would be desirable to have the dense flexible strand tool coated with either an antiseptic, vasoconstrictor and/or an analgesic. These coatings would release medicines and/or pain killers to the area of the gum line." It was from Appellant's disclosure that the examiner applied a teaching of vasoconstrictor as an acceptable

agent and as vasoconstrictor is known in the art to function as a coagulant or decongestant which may alleviate irritation and discomfort to a person and be construed to alleviate "pain". As to the use of the word "coating", the examiner took the teaching in Robertson of "[t]he dentist may **dip** the said gum retracting appliance in a hemostatic or vaso-constrictive solution of his preference prior to placing on the tooth, may further **apply** a vaso-constrictive to the ring after it has been placed between the gum and the cervical portion of the tooth" and not the phrase "or may use said ring incorporating a vaso-constrictive component impregnated in manufacture." (column 2 line 72) Appellant has not disclosed any process in which "coating" is described.

In response to Appellant's argument that Brosius does not show the ring indicated to be used by slipping it over a tooth to grasp tooth surfaces, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Again it is noted that the claimed language has not invoked 35 U.S.C. 112, sixth paragraph.

As to the combination of Robertson and Brosius, it is the added feature of the projecting tabs or widened portions on the "tool" that is taught by Brosius which is applied to modify the "tool" of Robertson. Appellant is again arguing a different interpretation of the limitations of claim 1 in saying "one skilled in the art would clearly recognize that having a rounded cross-section as the cross-section for scraping ring 6 of Robertson would lead to an inferior and unworkable device, since a rounded cross-section wouldn't scrape away tissue from the root of a tooth." Also it is noted that "rounded cross-section" is not a limitation of claim 1 and Robertson does not teach a scraping ring. Robertson teaches the "tool" of different sizes and shapes, and

different methods of using of the "tool" that would allow for modification with tabs or widened portions for facilitating installation as by gripping and the feature(s) would not interfere with Robertson's intended use.

As to the combination of Robertson and Mahoney et al., the specification including the claim is not specific as to the biodegradable material of the tool. Appellant's arguments as to Robertson teaches removing its ring in three minutes after insertion making the modification unlikely, it is noted that Appellant also shows an embodiment of the claimed tool being removed from the tooth and not left for biodegradation (original claim 21); therefore, the embodiment of Robertson which shows the "tool" being removed from the tooth may likewise be modified with biodegradable material for the option of being left for biodegradation. Appellant argues in the brief that "[f]urther, removing could be by absorption"; however, this is not disclosed as a meaning of "removing" and Appellant clearly states in the specification, for example on page 7 line 16 "[a]lso these tabs 30 and 32 can be used to pull the tool 10 off the tooth after the dentist has tamped down the soft gum tissue" indicating that the tool is removed intact.

Appellant's arguments with respect to claims 21 and 22 have been fully considered and are persuasive. The rejection of claims 21 and 22 has been withdrawn. Claims 21 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Further claim 21 should read "root portion" or "root portions" not both, and claim 22 is objected to for recitation of "the gum line" lacking sufficient antecedent basis.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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